

Unit II: Our World Economics

What's All the Buzz About? Economics as Allocation

Unit Learning Objectives

Unit II focuses on supply and demand, pricing, and allocation. The video presents a case study of honey and other bee products. Additional exercises explore the mechanisms of pricing, provide practice with allocation, and consider more complex socioeconomic indicators of the global distribution of wealth.

By the end of this unit, *ALL* students should be able to:

- Understand the rationale for the formal definition of economics as “the study of the allocation of scarce resources.”
- Understand the concept of a basket of commodities and be able to estimate the price of a commodities basket.
- Diagram a feasible international supply chain for widgets that details necessary steps from collection of raw materials to final sales to consumers.
- Understand how the forces of supply and demand affect pricing.
- Find credible economic data on the Internet and work with more advanced socioeconomic indicators.
- Discuss how, historically, the forces of colonialism have significantly shaped today’s global allocation of wealth.

ADVANCED students should be able to:

- Understand the concept of dumping, and explain how agriculture subsidies lead to artificially low milk prices.
- Draw a supply and demand graph.
- Discuss relationships between a state’s national identity and economic cohesion.
- Understand how GDP composition by sector changes with a nation’s degree of industrialization.
- Understand how an aging population can affect an economy and discuss whether or not immigration compensates for this problem.

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Unit II

Overview of Activities

1. Video: What's All the Buzz About?
Review of domestication. Introduction, via the example of beekeeping, to product innovation, pricing and the supply chain.
2. Where Do We Get Widgets?
Activity exploring the international production and supply chain for an imaginary product, widgets. Poster session.
3. Home Economics
Group activity introducing formal definition of economics.
4. A Basket of Licuados
Worksheet and homework assignment exploring baskets of commodities, plus recipe for frozen fruit drink.
5. Class Market
Classroom activity exploring supply, demand and pricing.
6. Legacies of Colonialism
Essay and short-answer questions exploring the economic outcomes of colonialism in North and South America.
7. CIA World Factbook
Internet research exercise and discussion investigating advanced socioeconomic indicators of poverty and wealth.

II.1. Video: What's All the Buzz About? Instructions

Synopsis

What's All the Buzz About? introduces students to honeybee cultivation. The video reinforces the concept of domestication and notes that the taming of animals played a key role in the development of civilizations and economies.

The video presents examples of product innovation — bee products such as wax, cosmetics, medicines and health foods — and it discusses how these products reach consumers and how their final prices are determined. What's All the Buzz About? prepares students to explore more closely concepts of: precursors to civilization; supply, demand and pricing; the supply chain and distribution of goods; and economics as a process of allocating resources.

Class Discussion: Follow-Up Questions

1) What were some of the ancient societies that Germán mentioned that cultivated bees?

The Egyptians, Romans and ancient Greeks all cultivated honey.

2) Today, people utilize a wild animal, the bee, for many commercial uses. What are some of the bee-related commercial products that the video mentions?

Wax, shampoo, health food products such as pollen and royal jelly, bee sting therapy.

3) Germán mentioned that the unpaved roads in Bolivia can be a problem for commerce. Why is this the case?

Producers like beekeepers, vegetable growers, and dairy farmers have a difficult time getting their wares to the big cities where there are the most customers. The roads are slow to travel on and can damage vehicles, so transportation is more expensive. Wares may also be damaged or lose their freshness along the way. Sometimes, during rainy season, the roads become so flooded that they are impassable and there is no ground transportation at all during this time period.

4) Recall the little container of royal jelly in the Apicentro store. Why do students think a product like royal jelly is so much more expensive than a product like honey?

Royal jelly is much rarer. Bees produce very little royal jelly. It also must remain refrigerated, so it is more expensive to transport and to store.

At the same time, many consumers believe that royal jelly is extremely beneficial to their health. So, they are willing to pay high prices for this unusual product.

5) What are some of the ways that the Apicentro store probably decides how much to charge for its products?

Various factors are involved. Try to elicit all three of these points from students, and write the key terms on the board:

- *Net profit.* In order to make a profit, retailers must sell a product to their customers for more than they paid to purchase it from the producer. If honey from the beekeeper in the countryside costs 20 bolivianos per liter, then the store must sell honey to their customers for more than 20 bolivianos per liter.
- *Customer demand.* Ideally, any store would like to charge as much as possible for its products. But, when retailers charge too much, customers may simply decide that they really do not need a particular product, such as pollen, after all.
- *Competition.* Another reason retailers cannot charge as much as they wish is because other retailers are competing with them. If Apicentro is selling its honey for 28 bolivianos per liter, a nearby store may decide to charge only 25 bolivianos per liter in order to attract more customers.

6) What does Germán mean by a market? What different kinds of markets can students think of?

When Germán refers to the bee market, he means the entire arena of sales and purchases related to bee products: the purchase and sale of honey, beeswax, bee related cosmetics, bee sting therapy, et cetera. The bee market may be specific to Santa Cruz or Bolivia, or it may be even broader and refer to the sales and purchases of bee related products around the world.

When economists refer to a market, usually they mean the market for a particular product or service. The housing market, the market for athletic wear, and the market for carbonated beverages are all examples of different markets.



II.2. Where Do We Get Widgets? Diagramming Exercise: Instructions

Objectives

- To provide practice with the concept of a product supply chain using diagramming and public speaking skills.

Advance Preparation

Students will be making posters for this exercise. Each student (or group, if you choose to assign this activity to groups) will need a large sheet of posterboard or heavy stock paper; scissors and paste.

For illustrating posters, students may want to use markers or colored pencils, illustrations cut out from magazines, and illustrations printed from the Internet.

Poster Preparation

Depending upon how elaborately illustrated the posters are to be, students may need more than one class session to complete this exercise.

1) Hand out a copy of the Where Do We Get Widgets? reference sheet to each student and review its sample supply and production chain for beeswax candles. Make sure that students understand:

- The overall process: Raw beeswax is transformed into candles which are purchased by consumers.
- The chronological order of the steps.
- The fact that the chain actually has many branches: E.g., more than one apiary sells raw wax to the same candlemaker; the same candlemaker sells candles to more than one retailer.

2) Hand out the art supplies and the Where Do We Get Widgets? activity sheet. Instruct students to cut out the steps of the Widget Supply Chain on the activity sheet and paste them neatly, in a logical order, as a diagram on their poster paper.

Poster Session

Assign each team an exhibit space in the classroom to display its posters. Teams should select one or two members to stay with the exhibit and to answer questions. Remaining students may circulate around the room, look at other teams' posters, and ask questions.

Follow-Up Discussion

1) In today's world, it is common for a supply chain to be international in nature. How do students imagine that this has come about?

Economically, the world has tended to become far more liberalized; that is, there is greater trade between nations. The North American Free Trade Act and the European Union are examples, respectively, of an international treaty and a supranational organization that encourage trade in goods and services across national borders.

2) What does this activity, *Where Do We Get Widgets?*, say about globalization? How do students define the term, globalization? Do they perceive this phenomenon as positive or negative?

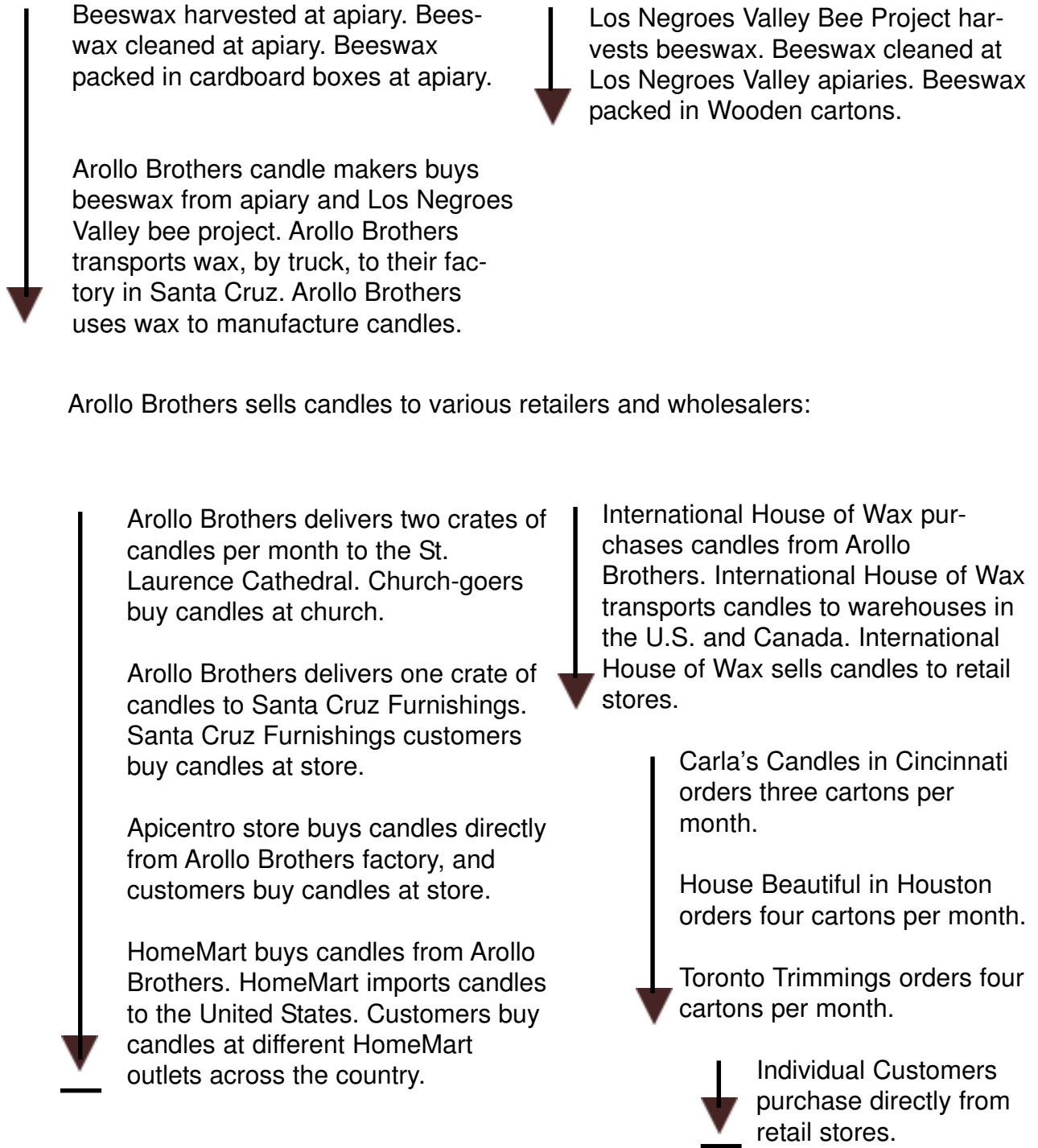
According to political theorist, Joseph Nye, "Globalism, at its core, seeks to describe and explain nothing more than a world which is characterized by networks of connections that span multi-continental distances." And, according to Nye, globalization refers to the increase or decline in the degree of globalism.

The supply chain in this exercise realistically describes a world where raw materials are purchased from more than one country, manufactured in yet another country, and distributed and sold internationally.

It is a question of political philosophy whether or not globalism is "good." Globalism brings us satellite communications, sharing of information and ideas, foreign films and art, and inexpensive imports. It is also associated with exploitation of poorer countries and with cultural hegemony.

Where Do We Get Widgets? Reference Sheet

Sample Beeswax Candle Supply Chain



Where Do We Get Widgets? Activity Sheet

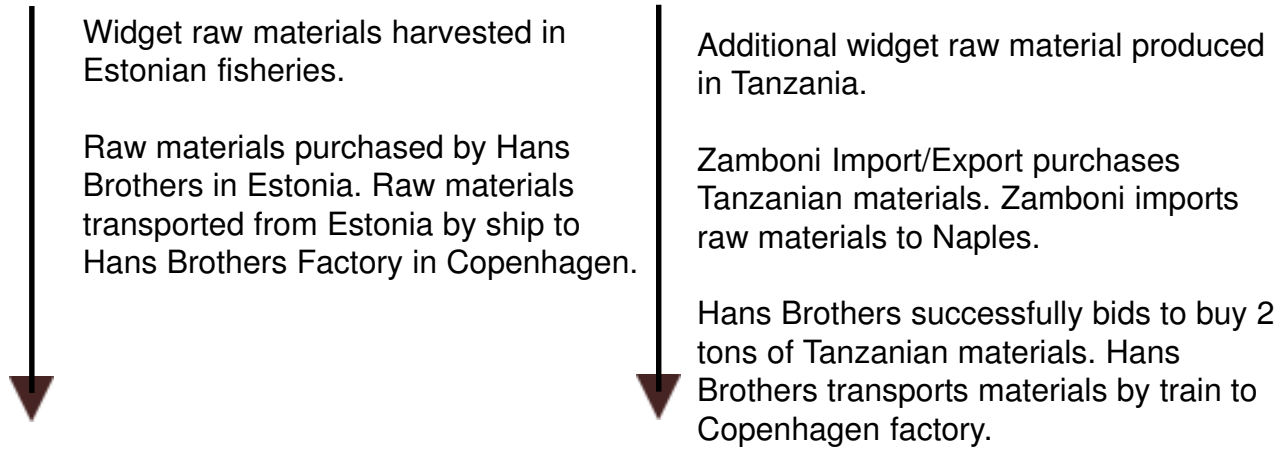
Economists enjoy talking about “widgets.” A widget isn’t actually a real thing. It’s simply a generic term for any type of product. Using the example of the Beeswax Candle Supply Chain, put the steps for the Widget Supply Chain below in a correct order.

Widget Supply Chain

- **Wally’s Widgets stocks widgets in U.S. stores for customers.**
- **Hans Brothers transports materials by train to Copenhagen factory.**
- **Companies in Germany, Argentina, and the U.S. buy widgets directly from factory.**
- **Raw materials purchased by Hans Brothers in Estonia.**
- **Zamboni Import/Export purchases Tanzanian materials.**
- **Raw materials transported from Estonia by ship to Hans Brothers factory in Copenhagen.**
- **Factory in Copenhagen manufactures widgets.**
- **Widget raw materials harvested in Estonian fisheries.**
- **Additional widget raw materials produced in Tanzania.**
- **Useful Stuff imports widgets from Copenhagen to the United States.**
- **American retailers order widgets from Useful Stuff.**
- **Bauhaus Widgeten stocks widgets in German stores for customers.**
- **Hans Brothers successfully bids to buy 2 tons of Tanzanian materials.**
- **Widgets stored in Unsere Gessellschaft warehouses.**
- **German retailers order widgets from Unsere Gessellschaft.**
- **Nuestros Widgetes stocks widgets in Argentine stores for customers.**
- **Unsere Gessellschaft imports widgets from Copenhagen to Germany.**
- **Nuestros Widgetes purchases widgets directly from Copenhagen factory.**
- **Zamboni imports raw materials to Naples.**
- **Widgets stored in Useful Stuff warehouses.**

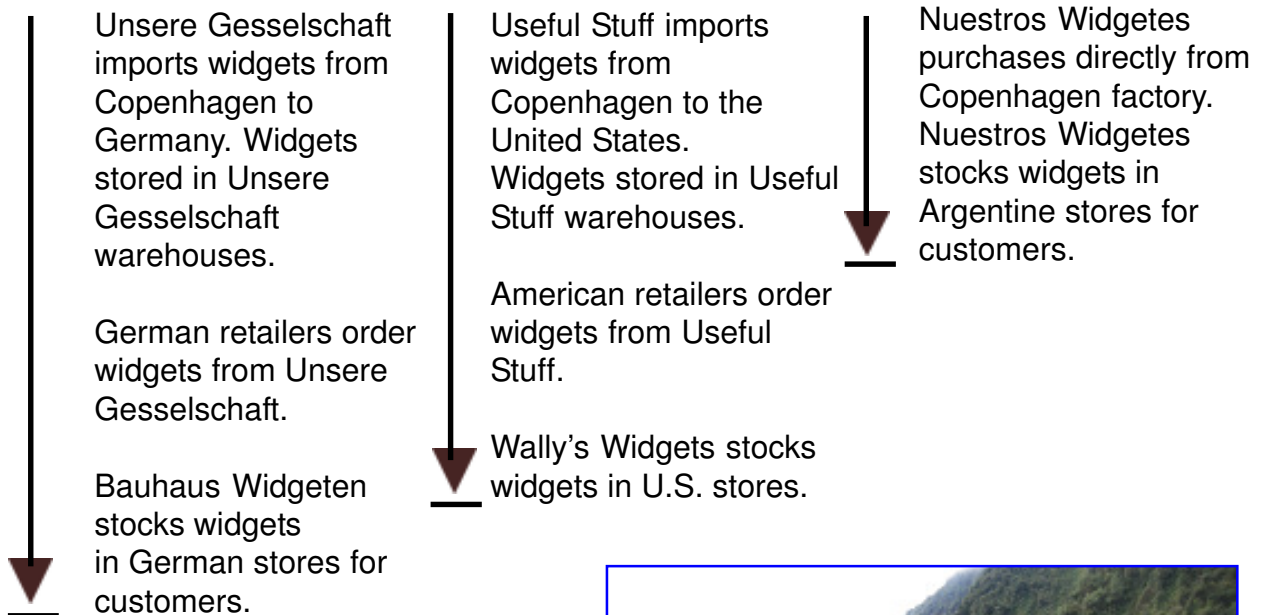
Where Do We Get Widgets? Answer Sheet

Sample Widget Supply Chain



Factory in Copenhagen manufactures widgets.

Companies in Germany, Argentina, and the U.S. buy widgets directly from factory:



Until 2005, this unpaved road was the only thoroughfare between two major regions of Bolivia, La Paz and Yungas.



II.3. Home Economics: Group Activity: Instructions

Objectives

- To introduce students to the formal definition of economics as the allocation of scarce resources.
- To give students a practical understanding of this definition via a budgeting exercise.

Instructions

- 1) Write the word, “economics,” on the board and ask students what they think the definition of economics is. Allow them to come up with a variety of guesses.
- 2) Economists actually consider their discipline to be “the study of the allocation of scarce resources.” Write this definition on the board, and give students a moment to think about it.
- 3) Tell students that they are going to have to agree on a household budget. Break the class into groups of four to six and assign the Home Economics activity sheet. Larger groups are preferable since students will have a harder time reaching an agreement; this exercise should emphasize that economics is about choices.
- 4) Once the groups have completed their budgets, call upon each group to present on what monthly expenditures it decided upon. Ask groups to justify some of their choices. Was it difficult to come to an agreement? Discuss whether all of the groups’ budgets were realistic. Discuss how weighing needs versus luxuries played a role in decisions.
- 5) Return again to the definition of economics as the allocation of scarce resources. Ask students why they think this is the definition of economics.

Students should now be able to articulate that economics is about the *choices* of how to utilize our resources. For the Home Economics activity, they had only \$2,000 to pay for basic necessities and a few luxury items.

Typically, people think of economics as the study of money. In reality, money is merely a medium of exchange representing resources.

II.4. A Basket of Licuados: Instructions

Objectives

- To explain the concept of a basket, a tool economists use as a pricing index.
- To provide practice in estimating and comparing the prices of real baskets in two different markets.

Advance Homework Assignment

The Basket of Licuados activity sheet may require a few days to complete as it may entail a trip to the grocery store.

Follow-Up Discussion

- 1) What prices did students come up with for a basket of licuados in the United States?
- 2) Where is the basket less expensive, in Bolivia or in the United States?
- 3) Are groceries inexpensive to Bolivians?

No. Remind students of the World Store video: To an average Bolivian, groceries are expensive because Bolivians earn less money than Americans. The average household income in Bolivia is only \$1,000 per year; in the United States, it is 44 times that much.

- 4) What other types of commodities baskets can students think of?

Types of commodities baskets are limited only to the information that people wish to compare. The cost of living is one of the most commonly calculated. Baskets have also been devised to compare housing costs in different markets. *The Economist* magazine publishes an index each year of the price of a single hamburger in cities around the world.

Advanced Discussion Question

Why is milk so much more expensive in Bolivia?

Milk in the United States and the European Union is less expensive than average world prices because dairy farmers are highly subsidized. If any students are interested in the question of why milk is more expensive in the Third World, the producers recommend visiting Oxfam International's Web site for detailed information, tailored to youth, about milk subsidies and milk dumping.

A Basket of Licuados: Activity Sheet

Easter baskets. Basketball hoops. Bicycle baskets. Bread baskets... Did you know that economists use "baskets" as a type of measuring tool? For an economist, a basket refers to a collection of goods and services and their prices. For example, to find out how expensive life is for an American living in a particular town, an economist might look at an imaginary basket that contains all the elements a typical person needs to live:



A typical Bolivian outdoor market.

Cost of Living for One Year: Hometown, USA

Groceries for one year - \$2,500
Transportation costs for one year - \$3,000
Housing costs for one year - \$12,000
Clothing costs for one year - \$750
Health expenses for one year - \$2,000
Entertainment for one year - \$1,000
TOTAL: \$21,250 per year

And, here is what a "basket" to make licuados for a big party would cost in Bolivia:

Licualdo Basket: Santa Cruz, Bolivia

Item:	Price	(Bolivianos):
Two pounds bananas	4	Bs
One pound strawberries	4	Bs
Two large pineapples	4	Bs
Two gallons whole milk	59.5	Bs
One-half pound sugar	.8	B
Approximately 100 plastic cups	15	Bs
Approximately 100 plastic spoons	7	Bs
Approximately 100 straws	4.4	Bs
Approximately 100 paper napkins	8	Bs
One inexpensive blender	119	Bs
TOTAL:	225.7	Bs
(divided by 8Bs per dollar) = \$28.21		

What is the cost for a similar licuado basket in your home town? Find prices by going to the grocery store, looking at price tags in your kitchen, and asking your parents. Be sure to use regular prices, not sale prices.

Licuado Basket: _____, USA	
(Your Town)	
Item:	Price (U.S. Dollars):
Two pounds bananas	_____
One pound strawberries	_____
Two large pineapples	_____
Two gallons whole milk	_____
One-half pound sugar	_____
Approximately 100 plastic cups	_____
Approximately 100 plastic spoons	_____
Approximately 100 straws	_____
Approximately 100 paper napkins	_____
One inexpensive blender	_____
TOTAL:	_____

Fruit Licuado Recipe

Blended fruit drinks are popular throughout Latin America. "Licuados" can be made with any kind of fruit blended with water or milk. Some people even use canned condensed milk. This recipe for licuados calls for regular whole milk and lets you choose the type of fruit.

Ingredients

- 2 cups of fresh or frozen fruit
(Small fruits like berries can be put directly into the blender. For larger fruits like apples or peaches, you'll need to chop them into medium-sized chunks.)
- Two cups whole milk
- 4-8 ice cubes
- Sugar, to taste

Directions

Add fruit, milk and several ice cubes into blender. Mix at low speed until fairly well blended. Taste, and add as much sugar as needed. If the flavor is too intense, add two to three more ice cubes. Blend again until smooth. Serve and drink immediately.

II.5. Class Market: Class Activity: Instructions

Objective

- To demonstrate the relationship between supply, demand and price.

Supplies

- This activity requires some form of artificial money; for example, poker chips or monopoly money.
- In addition, half of the class will be assigned to bring food products to sell in the classroom market.
- Magic markers, tape and paper for students to make signs advertising the price of their wares are needed.

Instructions

For this exercise, the classroom will be transformed into a market place. Half of the class will be vendors selling wares, and half of the class will be consumers purchasing wares.

Ask half of the class to volunteer to be vendors. Vendors are expected to bring a few snacks to class on market day. Students should bring small items such as: several apples, a few packages of chips, a carton of juice with paper cups, et cetera.

Note: It is important not to tell students what products to bring; this is a free market exercise. Simply tell students to bring a few items of any food product.

On the day of the market, arrange desks to be stands for each of the vendors. Instruct vendors to make signs displaying the price of their wares. Explain that they may change their prices later as necessary. Distribute the artificial money equally among the customers. The customers should then circulate and try to buy some satisfying snacks. Vendors should try to earn as much money as possible. Allow the process to continue until all wares are sold or until purchasing reaches a standstill.

Follow-Up Discussion

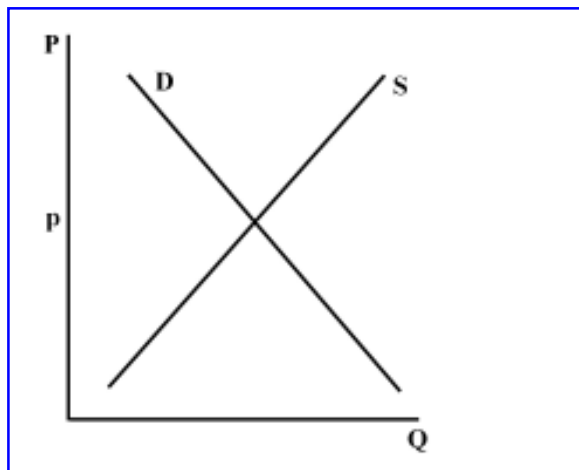
- 1) How did customers decide what snacks they wished to purchase?
- 2) What snacks were the most/least popular, and why?
- 3) What snacks were the most/least expensive, and why?
- 4) Did any vendors decide to change the price of their wares? Why?

Several points should be elicited from the above questions:

- Both the price of a snack and the preference for a particular snack play a role in deciding what to buy.
- Some customers may have chosen not to buy exactly what they wanted because the price was too high.
- More competition among vendors (for example, several vendors who all brought chocolate chip cookies) will tend to drive prices down.
- The rarer and more desirable a snack, the more expensive it will be.
- Vendors probably initially chose the price they thought was realistic for their snack and then raised the price if the demand from customers was high or lowered the price if there was little demand for their product.

Advanced Discussion Questions

1) Copy the supply and demand diagram below on the board and ask students to draw a copy of the diagram for themselves. Explain to students that this is the classic model for explaining price in economics.



The Y axis shows the price (P) of a product, and the X axis denotes the quantity (Q) of a product. The less expensive a product, the more it will be in demand; thus, the demand curve (D) tilts down. At the same time, the more expensive a product, the more vendors will attempt to supply that product to the market place; thus, the supply curve (S) tilts up. Where the two curves — the supply curve and the demand curve — meet, is the theoretical price (p) of the product.

II.6. Legacies of Colonialism: Essay: Instructions

Objectives

This essay seeks to explain that:

- Countries throughout North and South America are not only political but also economic entities as a result of European colonialism.
- This colonialism was largely (if not primarily) economically motivated.
- Different approaches by the British and the Spanish to managing their colonies have, in part, affected the economic development of North America and Latin America, respectively.

Short-Answer Questions

1) In your own words, how would you describe colonialism?

It is important for students to understand that in most parts of the world, *colonialism* and *colonies* are not words that evoke positive emotions. For individuals who have lived under a system of colonialism, or whose ancestors have been deprived of life, liberty and land by colonialism, the word refers to an aggressive behavior of forcibly taking territory belonging to others. Colonialism entails war, loss of homeland, loss of life.

2) What are some of the reasons why the settlers of the Virginia Company of London tended to develop strong local economies?

The so-called London Company was largely unsuccessful as a British commercial enterprise. Aside from tobacco, it had little to offer its shareholders in England.

With little to trade with the Old World, the settlers were forced to focus on making ends meet for themselves. They grew crops and manufactured their own necessities.

3) What are some of the reasons why the Viceroyalty of Peru developed into a weaker economy than Virginia?

For two Centuries, the Viceroyalty was able to succeed by focusing on primarily one economic function: exporting South American riches back to Spain. It is estimated, for example, that during the period of colonization, Bolivia's famous silver mine in Potosi gave up seven tons of silver to the Spanish monarchs.

Ongoing wars with the Portuguese, as well as conflicts with various European pirates, also forced the Viceroyals of Peru to focus more on security and less on settlement.

Additional Discussion Points

1) Point out that, from the 16th Century to as late as the 20th Century, western Europeans extended their empires to *virtually all* territory in Africa, the Middle East and south and central Asia.

Use a world map to point out a few former colonies including:

- India, Hong Kong, Australia – England.
- Macau, Angola, Brazil – Portugal.
- Senegal, Guinea, Vietnam – France.
- Morocco and the Philippines – Spain.
- Ethiopia and Eritrea – Italy.
- Tanzania and Rwanda – Germany.

2) Why did Europe move into these territories?

For economic gain. Just as Spain reaped resources from South America, so, too, did other European countries reap resources from other territories. Precious metals and stones, tropical woods, crops and manufactured items produced by slave labor, were all imported to Europe from various colonies abroad.

3) How are most of these areas of the world referred to today?

Most of these former European colonies now constitute the Third World.

4) How might colonialism have contributed to impoverishment in many of these countries?

The same forces at play in South America took root in other parts of the world: Local natural resources were plundered. Native people were killed, uprooted and enslaved. Indigenous political systems were eradicated. Language and culture were also eradicated. European nations also created artificial political boundaries, “countries,” that in no way reflected the historical territories and associations of the original inhabitants.

Advanced Discussion Questions

1) How does colonialism provide an example of how political forces can shape economic outcomes?

If European powers had not conquered the Americas, the continents might have taken opposite paths in terms of economic development: The Inca empire was centralized, massive, and practiced agriculture. North America hosted many indigenous groups who were primarily decentralized hunter

gatherers. In the absence of European influence, it is South America that was more likely to develop a capitalist economy.

2) Drawing on the essay, explain how national identity can also be related to economic prosperity.

The British colonists, in forming a new country, started with a largely homogeneous society – since they excluded the indigenous people from their communities. The Spanish colonists included native Americans in their society as peons and slaves. After the fall of the Viceroyalties, South America was far more heterogeneous than its neighbor to the North. South Americans were forced to create senses of nationality, identity, and even to communicate with one another across foreign language barriers. One result has been that in the post-Colonial period South America has experienced far more wars than North America. In addition, this heterogeneity has likely contributed to the slowness of developing not only stable political entities, but also stable economies.

Additional Reading for Teachers and Advanced Students

Lange, M., Mahoney, J. and vom Hau, M. *Colonialism and Development: A Comparative Analysis of Spanish and British Colonies*. © 2006. The University of Chicago. This journal article, written at the university level, goes into depth on how the European colonization of the Americas reversed the previous economic trends in these two continents.

The Heart of Darkness. This classic novella by Joseph Conrad depicts with bluntness and accuracy the cruelty of colonialism in Africa and its underlying motive of economic gain.



This magnificent brick cathedral and city plaza were built during the Spanish colonial period in what was then the Viceroyalty of Peru.

Legacies of Colonialism: Contrasting Historic Patterns

In 1606, King James the First of England chartered (legally established) a public company very similar to public companies today such as McDonalds or IBM. The purpose of the company, just like any modern enterprise with shareholders, was to make money for its investors.

It may surprise you to learn that the name of this charter, this commercial enterprise, was the Virginia Company of London and that, in the year of its establishment, the company sent settlers to the New World. “London Company” investors and indentured servants traveled to what is now Jamestown, Virginia, in order to export the great riches of the New World back to England for commercial gain.

South America experienced a similar story, although some 70 years earlier. In 1531, a Spaniard, Francisco Pizarro, traveled to the Inca Empire of South America to seize power from the existing ruler, Emperor Atahualpa. Very quickly, Spanish

monarchs established systems of “Viceroyalties,” similar to the British charter system; modern day Bolivia and Peru both formerly belonged to what was then known as the Viceroyalty of Peru. The Spanish kings and queens appointed rulers, Viceroyals, to oversee the export of riches from the New World to Spain.

Thus, the story of colonization in the Americas is the story of European countries and private business people seeking to earn great wealth across the Atlantic. These efforts included seizing the colonized territories from native people who already lived there; in Jamestown, the Powhatan Indians, and in Bolivia, the Incas. The economies in both continents also relied upon African slave labor.

Although both the South American colonies and the North American colonies were established by European monarchs, they followed very different economic paths:

In Virginia, shareholders were disappointed to discover that there was very little in the way of natural resources that could be exported back to England. Jamestown did develop a commercial tobacco trade. But, eventually, most of the settlers’ efforts went to establishing crops, trades, and means of commerce to live comfortably as the settlements grew.

Virginia settlers also replaced the local social systems with an entirely new economic system based on agriculture, industry, commerce, currency and slaves: Previously, Powhatans and other North American Indians had enjoyed primarily hunter gatherer life-styles; North

America offered relatively few domesticable plants and animals but many forms of wildlife that could support the Indians.

In the Viceroyalty of Peru, by contrast, a different story unfolded. The Spaniards spent less time warring with the native peoples and more energy warring with fellow Europeans. For two centuries, for example, Spain fought with Portugal over territories in the New World. At the same time, the native peoples survived to a greater extent than in North America. (Today, between 80 and 86 percent of the population in Bolivia identify themselves as “indigenous,” (native) or “mestizo” (mixed heritage). Although these native groups survived, they were splintered and even enslaved by the Spaniards.

Unlike Virginia, the Vice Royalty of Peru was rich in natural resources, and the Spaniards successfully extracted huge shipments of gold and silver, as well as sugar, from the New World. Some economists estimate that, during this time period, over \$200 billion in natural resources was exported to Spain from Bolivia alone. Thus, Spain not only needed to devote far less energy, but also had fewer resources to devote to the development of more complex economic settlements in South America.

Legacies of Colonialism: Short-Answer Questions

- 1) In your own words, how would you describe “colonialism”?
- 2) What are some of the reasons why the settlers of the Virginia Company of London tended to develop strong local economies?
- 3) What are some of the reasons why the Viceroyalty of Peru developed into a weaker economy than Virginia?



Due to the Spaniards' influence, most Bolivians are Roman Catholic.

II.7. CIA Factbook: Internet Research Assignment: Instructions

Objectives

- The Central Intelligence Agency (CIA) Factbook activity sheet gives students practice in looking up economic information on the Internet, and introduces a reputable source for economic data.
- The classroom discussion encourages students to compare advanced socioeconomic indicators and helps students to understand how such indicators demonstrate a country's relative degree of poverty or wealth.

Homework Instructions

- The CIA Factbook activity sheet should be completed individually.
- The Factbook is a complicated document. Reassure the students that they do not need to understand all of the information presented in the CIA Factbook; they should focus only on looking up the information requested in the activity sheet.

Follow-Up Discussion

1) Hand out the answer sheet so that all students are using the same data set. Explain that the answer sheet provided by *Our World Economics* is based on data posted by the CIA in January 2010.

2) Ask students what types of information in the data sheet they believe might suggest that a country is either wealthy or poor, and why.

- *Irrigated land* indicates the amount of area devoted to agriculture.
- *Natural resources* may provide some indication of the wealth of a country, although many countries do not utilize their natural resources.
- *GDP composition by sector* is very telling and will be discussed under Advanced Discussion Questions.
- *Exports and imports*, discussed in detail below, shows the role a country plays in global markets.
- *Reserves of foreign exchange and gold* refers to how much foreign currency and gold a country's government owns.
- *Economic aid status*. Wealthy countries tend to be donor countries (providing grants for foreign aid projects) while poorer countries are the recipients of such grants.

3) Focus on size.

a) What data indicates the "size" of each country?

- *Area* indicates physical size.
- *Population* indicates the amount of people living in the country and is also a measure of size.

- *Exports and imports* also show the degree to which the country trades in the world market, another important indicator of size – financial size.

b) Why is a country's size important?

Size shows how much power a country has. The larger a role the country plays in world markets, the stronger its voice internationally. Norway, for example, is a very wealthy country with a standard of living higher than the United States. But, because it has a smaller economy and far fewer citizens, Norway plays a smaller role in world affairs.

Advanced Discussion Questions

1) Economists and sociologists in the United States worry that our population is aging; that is, there are not enough babies being born and, as people grow older, there will be fewer young people to work, fuel the economy, and help support the elderly in our society.

a) Compare birth rates in Bolivia and the United States.

Birth rates are far higher in Bolivia than in the United States. In other words, more babies are being born in Bolivia, per unit of population, than in the United States. Throughout Latin America, birth rates run higher than in the United States.

b) The United States experiences a positive migration rate. From an economic point of view, this may be a good thing. Why?

New waves of immigrants can help to fill jobs and to fuel the economy. Especially as the number of elderly people and retirees grows, younger immigrants can help to insure that productive labor is taking place and that the social security system (of pensions and medical insurance for the elderly) remains financed.

Note: The question of immigration is a contentious one in the United States and many policy makers argue that illegal immigration has negative overall effects on the U.S. economy. According to studies by the International Organization for Migration, the aggregate flow of immigration to the United States, both legal and illegal, creates an overall economic advantage.

There are, of course, other non-economic concerns about a high rate of immigration: that it can change the social and cultural composition and tone of a country.

2) Ask students to look at GDP composition by sector.

a) Why is the United States' economy weighted toward services?

This trend reflects a global pattern. As countries become increasingly industrialized, they tend to devote more and more of their resources to services, slightly fewer to industry, and even less to agriculture.

b) In which country will you find more of the population working as farmers, and in which country will more of the population work as consultant, writers and technicians?

Relatively more Bolivians will work as farmers while relatively more Americans will work in services.

3) Does the United States' donations of \$6.9 billion in foreign aid seem like a large amount?

Although the United States, in absolute terms, is the world's largest foreign aid donor, it actually contributes a far smaller percentage of its national income to foreign aid projects than do other wealthy countries. The U.S. contributes approximately .16 percent yearly in aid ranking (in 2004) twenty-first among donor countries. Norway, the top-ranked country, donated .87 percent of its national income.

Another way to assess the amount of foreign aid is to compare donations to military spending. The United States spends 25 times as much on its military as it does on foreign aid. Norway spends over twice as much on its military as it does on foreign aid.

CIA Factbook: Activity Sheet

The Central Intelligence Agency isn't all about cloaks and daggers. The CIA's World Factbook, a free Internet resource, offers quality economic and political information about countries. Visit the CIA World Factbook site to find the 9 missing pieces of data about Bolivia (below). *Do not worry* that there is a lot of information in the Factbook. Just concentrate on the data you are looking for.

REPUBLIC OF BOLIVIA

Area

total: 1,098,580 sq km
land: 1,084,390 sq km
water: 14,190 sq km

1) Area - comparative:

Land use:

2) arable land:

Irrigated land:
1,320 sq km

3) Population:

4) Birth rate:

5) Natural resources:

GDP - composition by sector:

agriculture: 11.3%

6) industry:

7) services:

8) Exports:

Imports:

\$4.641 billion

9) Reserves of foreign exchange and gold:

* Economic aid - recipient:

\$221 million (2005 est.)

UNITED STATES OF AMERICA

Area:

total: 9,826,630 sq km
land: 9,161,923 sq km
water: 664,707 sq km

Land use:

arable land: 18.01%

Irrigated land:

223,850 sq km

Population:

307,212,123

Birth rate:

13.83 births/1,000
population

Natural resources:

coal, copper, lead,
molybdenum, phosphates,
uranium,
bauxite, gold, iron,

mercury, nickel, potash, silver, tungsten, zinc, petroleum, natural gas, timber

GDP - composition by sector:

agriculture: 1.2%

industry: 21.9%

services: 76.9% (2006 est.)

Exports:

\$994.7 billion

Imports:

\$1.445 trillion

Reserves of foreign exchange and gold:

\$77.65 billion

* Economic aid - donor:

ODA, \$6.9 billion (1997 est.)



Displays of imported clothing in Cochabamba.

CIA Factbook: Answer Sheet

REPUBLIC OF BOLIVIA

Area:
total: 1,098,580 sq km
land: 1,084,390 sq km
water: 14,190 sq km

1) Area - comparative:
slightly less than three times the size of Montana

Land use:
2) arable land: 2.78%

Irrigated land:
1,320 sq km

3) Population:
9,775,246

4) Birth rate:
25.82 births/1,000 population

5) Natural resources:
tin, natural gas, petroleum, zinc, tungsten, antimony, silver, iron, lead, gold, timber, hydropower

GDP - composition by sector:
agriculture: 11.3%

6) industry:
36.9%
7) services:
51.8%

8) Exports:
\$4.837 billion
Imports: \$2.934 billion

9) Reserves of foreign exchange and gold:
\$8.317 billion

* Economic aid - recipient:
\$221 million (2005 est.)

UNITED STATES OF AMERICA

Area:
total: 9,826,630 sq km
land: 9,161,923 sq km
water: 664,707 sq km

Land use:
arable land: 18.01%

Irrigated land:
223,850 sq km

Population:
307,212,1223

Birth rate:13.83 births/1,000 population

Natural resources:
coal, copper, lead, molybdenum, phosphates, uranium, bauxite, gold, iron, mercury, nickel, potash, silver, tungsten, zinc, petroleum, natural gas, timber



GDP - composition by sector:

agriculture: 1.2%
industry: 21.9%
services: 76.9%

Exports:
\$994.7 billion
Imports:
\$1.445 trillion

Reserves of foreign exchange and gold:
\$77.65 billion

* Economic aid - donor:
ODA, \$6.9 billion (1997 est.)

Much of the land in Bolivia is unsuited to agriculture.